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Notice of Allowability	Application No.	Applicant(s)	
	10/750,619	JALLOUL ET AL.	
	Examiner	Art Unit	
	Sam K. Ahn	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--
 All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 07/03/07.
2. ☒ The allowed claim(s) is/are 1-24.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
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DETAILED ACTION

Drawings

1. The drawings were received on 07/03/07. These drawings are acceptable.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Laura Brutman on 08/17/07.

2. The application has been amended as follows:

In claim 3, line 3, "with ISCP" has been changed to "with the ISCP".

In claim 4, line 5, "of total" has been changed to "of the total".

In claim 5, line 1, "of total" has been changed to "of the total".

In claim 10, lines 3-4, "the highest detection values" has been changed to "a highest detection value".

In claim 15, line 3, "with ISCP" has been changed to "with the ISCP".

In claim 16, line 5, "of total" has been changed to "of the total".

In claim 17, lines 1-2, "of total" has been changed to "of the total".

In claim 22, lines 3-4, "the highest detection values" has been changed to "a highest detection value".

3. The following is an examiner's statement of reasons for allowance: present application discloses a method and a system for adjusting thresholds and identifying optimal propagation paths. Prior art teaches all the limitations claimed. However, prior art does not explicitly teach the combined limitations of obtaining ISCP measurements from a database communicating with a baseband receiver, calculating a scaler or scaling based on normalized values of the ISCP measurements, adjusting the thresholds based on the scaler, and storing the adjusted thresholds in the database.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

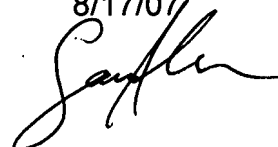
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Ahn whose telephone number is (571) 272-3044. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sam K. Ahn
Patent Examiner

8/17/07



AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for dynamically adjusting searcher thresholds in a base band receiver, the searcher thresholds being used to detect propagation paths of a communications signal transmitted from a transmitter to the base band receiver, the method comprising the steps of:

obtaining interference signal code power (ISCP) measurements of the communications signal from a database communicatively coupled with the base band receiver, wherein contents of the database are associated with a physical layer;

calculating a scaler based on normalized values of the ISCP measurements only;

adjusting the searcher thresholds, which are stored in the database, using the scaler; and

storing the adjusted searcher thresholds in the database.

2. (Original) The method of claim 1, further comprising the steps of:

summing the ISCP measurements to create a total ISCP; and

normalizing the total ISCP;

wherein the scaler is calculated based on the normalized total ISCP.

3. (Original) The method of claim 1, wherein the step of obtaining ISCP measurements comprises the steps of:

populating a memory location with ^{the} ISCP measurements during physical layer processing;
and
accessing the memory location.

4. (Original) The method of claim 1, wherein the step of calculating the scaler comprises the steps of:

calculating a total ISCP by adding the ISCP measurements of all fingers of all uplinks;

calculating a normalized value of the total ISCP; and

dividing the normalized value of ^{the} total ISCP by a delayed value of ISCP.

5. (Original) The method of claim 4, wherein the normalized value of ^{the} total ISCP is calculated by dividing the total ISCP by a buffered value equal to a number of uplink connections times a threshold update time divided by a predetermined observation period.

6. (Original) The method of claim 5, wherein the predetermined observation period is 80ms.

7. (Original) The method of claim 1, wherein the step of adjusting the searcher thresholds comprises the step of multiplying the searcher thresholds by the scaler.

8. (Original) The method of claim 7, wherein the searcher thresholds are searcher thresholds of respective uplinks.

9. (Currently Amended) A method for identifying optimal propagation paths of a communications signal transmitted from a transmitter to a base band receiver, the method comprising the steps of:

obtaining interference signal code power (ISCP) measurements of the communications signal from a database communicatively coupled with the base based receiver, wherein contents of the database are associated with a physical layer;

calculating a scaler based on normalized values of the ISCP measurements only;

adjusting searcher thresholds, which are stored in the database, using the scaler;

storing the adjusted searcher thresholds in the database;

comparing the adjusted searcher thresholds with detection values of propagation paths of the communications signal; and

identifying the optimal propagation paths.

10. (Original) The method of claim 9, wherein the identifying step comprises:

sorting the propagation paths based on their respective detection values; and

selecting as the optimal propagation paths the propagation paths having the highest detection values.

11. (Original) The method of claim 9, including the additional step of storing historical data concerning the propagation paths, and wherein the selecting step is based further upon the historical data.

12. (Original) The method of claim 10, including the additional step of storing historical data concerning the propagation paths, and wherein the selecting step is based further upon the historical data.

13. (Currently Amended) A system for dynamically adjusting searcher thresholds in a base band receiver, the searcher thresholds being used to detect propagation paths of a communications signal transmitted from a transmitter to the base band receiver, the system comprising:

means for obtaining interference signal code power (ISCP) measurements of the communications signal from a database communicatively coupled with the base band receiver, wherein contents of the database are associated with a physical layer;

means for calculating a scaler based on normalized values of the ISCP measurements only;

means for adjusting the searcher thresholds, which are stored in the database, using the scaler; and

means for storing the adjusted searcher thresholds in the database.

14. (Original) The system of claim 13, further comprising:

means for summing the ISCP measurements to create a total ISCP; and

means for normalizing the total ISCP;

wherein the scaler is calculated based on the normalized total ISCP.

15. (Original) The system of claim 13, wherein the means for obtaining ISCP measurements comprises:

means for populating a memory location with ^{the} ISCP measurements during physical layer processing; and

means for accessing the memory location.

16. (Original) The system of claim 13, wherein the means for calculating the scaler comprises:

means for calculating a total ISCP by adding the ISCP measurements of all fingers of all uplinks;

means for calculating a normalized value of the total ISCP; and

means for dividing the normalized value of ^{the} total ISCP by a delayed value of ISCP.

17. (Original) The system of claim 16, wherein the means for calculating the normalized value of ^{the} total ISCP comprises means for dividing the total ISCP by a buffered value equal to a number of uplink connections times a threshold update time divided by a predetermined observation period.

18. (Original) The system of claim 17, wherein the predetermined observation period is 80ms.

19. (Original) The system of claim 13, wherein the means for adjusting the searcher thresholds comprises a means for multiplying the searcher thresholds by the scaler.

20. (Original) The system of claim 19, wherein the searcher thresholds are searcher thresholds of respective uplinks.

21. (Currently Amended) A system for identifying optimal propagation paths of a communications signal transmitted from a transmitter to a base band receiver, comprising:

means for obtaining interference signal code power (ISCP) measurements of the communications signal from a database communicatively coupled with the base based receiver, wherein contents of the database are associated with a physical layer;

means for calculating a scaler based on normalized values of the ISCP measurements only;

means for adjusting searcher thresholds, which are stored in the database, using the scaler;

means for storing the adjusted searcher thresholds in the database;

means for comparing the adjusted searcher thresholds with detection values of propagation paths of the communications signal; and

means for identifying the optimal propagation paths.

22. (Original) The system of claim 21, wherein the means for identifying comprises:

means for sorting the propagation paths based on their respective detection values; and

means for selecting as the optimal propagation paths the propagation paths having ^athe highest detection values.

23. (Original) The system of claim 21, additionally including means for storing historical data concerning the propagation paths, and wherein the means for selecting selects optimal propagation paths based further upon the historical data.

24. (Original) The system of claim 22, additionally including means for storing historical data concerning the propagation paths, and wherein the means for selecting selects optimal propagation paths based further upon the historical data.